SCIENCE & GOVERNMENT REPORT

The Independent Bulletin of Science Policy

Vol. VI, No. 15 | P.O. Box 6226A, Washington, D.C. 20015 | September 15, 1976

Britain Charts Different Course on DNA Research Curbs

Taking a markedly different approach from that adopted in the United States, the British government has decided to establish an independent, broadly based committee to monitor potentially hazardous recombinant DNA experiments in Great Britain. The committee, to be known as the Genetic Manipulation Advisory Group (GMAG), will review proposed experiments on a case-by-case basis and recommend safety precautions for each experiment.

The British approach to controlling recombinant DNA experiments is much more flexible, and potentially less strict, then procedures already adopted in the US (SGR Vol. VI, No. 12). It was proposed by a committee of scientists chaired by Professor Sir Robert Williams, director of the Public Health Laboratory Service in London, and formally endorsed last month by Fred Mulley, the minister for Education and Science.

It should be recalled that in the United States, the National Institutes of Health (NIH) has published a complex and extremely detailed set of guidelines governing recombinant DNA experiments which it supports (SGR Vol. VI, No. 12). The guidelines specify safety precautions for virtually every conceivable type of experiment. The Williams Committee, in contrast, has offered some general recommendations about safety, but has left it up to the GMAG to set specific conditions for individual experiments. The idea is to build up a "case law" rather than to write detailed statutes for recombinant DNA experiments.

Senate Weighs New R&D Committee Jurisdictions—p. 7

Though the GMAG's determinations will not be legally binding, it would be virtually impossible for experimenters to ignore them. In short, experiments likely to pose a health hazard fall under the terms of the Health and Safety at Work Act, and it has accordingly been proposed that details of all recombinant DNA experiments should be submitted not only to the GMAG but also to the Health and Safety Executive — a body similar to the US Occupational Safety and Health Administration (OSHA).

If an experimenter decides to ignore the safety precautions suggested by the GMAG, then the Health and Safety Executive could step in. The Executive, like OSHA, employs inspectors who have power to visit workplaces — including laboratories — and shut down operations deemed a threat to public health. The "voluntary" GMAG recommendations will thus be backed by potential legal sanctions.

The Williams Committee sees the whole procedure working like this: A researcher in Britain who wishes to conduct a recombinant DNA experiment must first seek approval from a safety committee and a Biological Safety Officer in his institution. He must then submit his proposal to the GMAG and the Health and Safety Executive, and the GMAG will tell him what safety precautions he should use. Eventually, a case record will be built up so that the assignment of safety levels will be

(Continued on Page 2)

In Brief

The General Accounting Office doesn't like NIH's policy of honoring its standard three-year grants when, along the way, new and higher-rated project proposals are turned down for lack of funds. In such cases, GAO says, terminate the old and support the new. NIH replied that the change "would be very disruptive to the stability of the scientific community." The exchange is in a 52-page report, "Better Controls Needed over Biomedical Research Supported by NIH," HRD-76-58, available without charge from General Accounting Office, Washington, DC 20548.

With the national highway speedlimit set at 55 mph, the Department of Transportation has at last gotten around to the curious matter of standard speedometers often listing 120 mph as maximum speed. DoT has proposed an 85-mph maximum, noting that the lower figure "would allow speedometers to be more readable in normal speed ranges, and that a higher limitation might encourage immature drivers to test the top speed of the vehicle."

Creation of an Institute of Museum Services is authorized in legislation, approved by both houses, that renews the Arts and Humanities Endowments for four years. Sponsored by Rep. John Brademas (D-Ind.), the museum provision authorizes $15 million in 1977 and $25 million in 1978 for a broad range of assistance to museums, including curatorial training. Also authorized is a two-year $30 million fund for "challenge grants" which museums would be required to match with private funds on a 3-1 basis.

. . .UK Policy Separates DNA Support from Regulation

(Continued From Page 1)

more or less determined by precedent. The Safety and Health Executive's inspectors would then be available to enforce the GMAG's recommendations if necessary.

The British approach offers some advantages over the procedure adopted in the US, but it could also lead to less strict safety precautions being employed. Perhaps the most significant advantage is that, while the NIH guidelines apply only to research which NIH supports, the British mechanism will be used to monitor all recombinant DNA research in that country, including industrial experiments and, ultimately, commercial uses of the technique.

Establishment of the GMAG as an independent body, separate from granting agencies, also avoids potential conflicts of interest. A criticism frequently leveled at the arrangement in the US, for example, is that a single body — NIH — is both supporting and regulating recombinant DNA experiments. As for the makeup of the GMAG, the Williams Committee suggests that it "should include not only scientists with knowledge both of the techniques in question and of relevant safety precautions and containment measures but also individuals able to take account of the interests of employees and the general public."

The idea of establishing a body like the GMAG and trusting it to devise and administer sensible and acceptable regulations is a typically British approach, in contrast to the usual American style of specifying all the conditions in advance. But will it result in experiments being conducted in Britain under different safety conditions than those imposed in the US?

Until the GMAG begins to build up its case law, it will be impossible to answer that question with certainty. But at least it should be noted that the Williams Committee has suggested some general guidelines for GMAG which are, in a few respects, more lax than those published by NIH.

The NIH guidelines, for example, specify certain particularly hazardous experiments (such as transplanting genes which confer drug resistance into organisms not known to have acquired that resistance naturally) which should not be carried out under any safety conditions. The Williams Committee, however, suggests no such flat prohibition.

Like the NIH guidelines, the Williams Committee recommendations define four levels of physical containment, ranging from use of standard microbiological techniques to use of special facilities akin to biological warfare laboratories, for conducting recombinant DNA experiments. The committee also points out that the use of special "disabled" strains of bacteria, rendered virtually incapable of surviving in the natural environment, would provide an additional level of biological containment.

The committee then offers some "illustrative examples," assigning safety levels to different categories of experiments on the basis of potential risk. Though the examples are in broad accord with the NIH guidelines, they generally place more emphasis on physical than on biological containment.

The NIH guidelines specify, for example, that genes from mammals should be transplanted into disabled bacteria only under conditions of high physical containment. Until disabled strains have been produced, such experiments cannot be undertaken. The Williams Committee, on the other hand, suggests a less restrictive condition, namely that mammalian genes could safely be transplanted into ordinary laboratory strains of bacteria in maximum containment facilities. There are similar instances where NIH insists on the use of disabled strains while the Williams Committee doesn't.

Finally, it should be noted that the Williams Committee conducted virtually all its business behind closed doors, a situation which is typical of the British style of government. Though it took evidence from a variety of sources — including trade unions — one can only speculate on the reasons why it chose to accept or ignore suggestions put to it. Presumably, the GMAG will also meet in secret, exercising the enormous trust placed in it without debating or explaining its actions in public. Though the outcome may well be no different whether such matters are settled in private or in public the public can never be certain that all viewpoints were at least heard. Exactly how the process will work in practice will, however, await the first few decisions of the GMAG.

The Williams Committee report, entitled "Report of the Working Party on the Practice of Genetic Manipulation", Cmnd 6600, is available from Her Majesty's Stationery Office, High Holborn, London WC2, for 90 cents.—CN

Institute of Medicine Appointment

Karl D. Yordy has been appointed executive officer of the Institute of Medicine, one of the major subdivisions of the National Academy of Sciences. Yordy, a staff member at the IoM since 1972, had held the position on an acting basis since January, when Roger J. Bulger left to become chancellor of the University of Massachusetts Medical Center.

OTA Study Criticizes Environmental Research

Times are hard for the Environmental Protection Agency's R&D office. Having been sharply criticized by the National Academy of Sciences and the Senate Public Works Committee in separate reports published in late 1974 (SGR Vol. IV, Nos. 17 and 18), reorganized early last year, caught in a budgetary squeeze, and in competition for funds with the Energy Research and Development Administration, it now finds itself the subject of yet another critical analysis. This time, its critic is the Office of Technology Assessment (OTA).

In a report published last month, OTA concluded that EPA is neglecting some key areas of research, placing excessive emphasis on short-term projects, and failing to coordinate the federal government's environmental programs. The report, put together by panels of experts drawn from universities, industry and public interest organizations, focused on EPA's five-year energy R&D plan, which was presented to Congress last February.

Perhaps the most comprehensive and solid look at EPA's R&D plans to date, the OTA report states that the "principal finding" is that EPA "does not indicate a clearly defined commitment to long-range environmental research." It adds: "Where the Plan does address long-range activities, it discusses the development of techniques rather than considering which long-range issues are important." In other word's EPA's plan really isn't a plan at all, but a collection of proposed projects which are not bound by any explicit strategy.

In conjunction with that criticism, the OTA report talks about EPA's "excessive focus on short term R&D issues related directly to the enforcement and/or achievement of EPA's current regulations." The criticism should evoke no surprise. EPA is constantly caught in the position of having to regulate environmental chemicals on the basis of inadequate data concerning health hazards, which means that it is constantly in need of quick, short-term research. Since EPA's research budget is relatively small (about $250 million a year), it is logical, even necessary, that it puts a good deal of its money into research to back its regulatory functions. The OTA report does not consider whether EPA's research budget is sufficient to meet the agency's needs.

OTA goes on to charge that "much of the work planned in researching the transport, fate, and monitoring of pollutants seems fragmented." It suggests that insufficient priority is given to research on "the complex of processes that link emissions from a source and their effect on the biosphere." And it argues that the plan does not "reveal an adequate screening program to detect toxic materials; it is the absence of such a capability that has contributed much to the current 'pollutant of the month' syndrome."

As for important studies on the health effects of chronic, low-level exposure to pollutants, the report suggests that "because of the present commitment of EPA to respond to near-term exigencies, it has not been able to develop a strong long-term health research capability."

Most of those criticisms essentially boil down to a lament that EPA is not sufficiently concerned with anticipating and dealing with problems before they occur. Its research is geared more toward supporting actions taken in response to problems which have already arisen. If Congress ever gets around to passing the Toxic Substances Control Act, which would require more extensive screening of chemicals before they are put on the market, that would be a major step toward anticipating and preventing environmental hazards. The report, however, does not address that solution.

The report, "A Review of the US Environmental Protection Agency Environmental Research Outlook," OTA-E-32, is available from the Government Printing Office, Washington, DC 20402 for $2.45. Request Stock No. 052-003-00200-1

Editor and Publisher
Daniel S. Greenberg

Contributing Editors
Colin Norman, Pamela Moore

European Correspondent
Michael Kenward (London)

Circulation Manager
Alice Anne Freund

Independently published by *Science & Government Report*, Inc., twice monthly, except once each in January, July and August. Annual subscription: Institutions, $75 (two years, $140); individuals, $44 (two years, $75). Editorial offices at 3736 Kanawha St., N.W., Washington, DC 20015. Tel. (202) 244-4135. Second class postage paid at Washington, DC. Please address all subscription correspondence to Box 6226A, Northwest Station, Washington, DC 20015. SGR is available on Xerox University Microfilms.

Cancer Research Budget Beats Cutback Attempt

Administration health planners have swung around to the position that cancer research suffers not from lack of money. But Congress, prodded in part by at least one member whose family had recent a encounter with the disease, has performed as usual, and the National Cancer Institute has once again been voted the biggest money boost of all 11 institutes that make up the National Institutes of Health.

Mindful of Congressional largesse toward cancer research, the White House budgetmakers chose the ploy of seeking a sizeable cutback from the present spending level, the expectation being that a small increase would then be regarded as a victory by NCI's friends. Thus, with current budget at $762.6 million, the Administration put in for $687.6 million for fiscal '77 — a $75 million cutback.

The House, which tends to be thriftier than the Senate, voted to increase the present budget by a mere $10.8 million. This amounted to a big boost over the depressed figure recommended by the Administration, but it was in the neighborhood of what the President's budgetplanners had hoped for when they plotted their manuever.

Alarmed at the Administration's initial success, the cancer lobby enlisted the aid of a Senator whose wife recently was afflicted by cancer. Telephone calls to his colleagues helped decide the matter. The Senate came through with a vote for $850 million, which is $162 million more than the Administration request; $87.4 million more than the current budget, and $76.6 million more than the House figure.

In conference, the two houses settled on $815 million — which means that the NCI budget next fiscal year will go up $52.4 million. In 1970, it totaled $190.4 million.

Though NCI continues to fare nicely in the budgetary carveup, there has apparently been some success in persuading Congress that additional growth for some of the other institutes is overdue. The final NIH figure agreed to by the two houses is $2.5 billion, which is $356.7 million more than the Administration's request. Because that request was skimpy in anticipation of Congressional generosity, the $2.5 billion comes out to an annual increase of only $228 million. The allocation among NIH's various components is shown in the box.

Money for NIH : The Outcome for FY 1977

	Final Congressional Figure	Administration Request	Current Budget
National Cancer Institute	$ 815,000,000	$ 687,670,000	$ 762,647,000
National Heart & Lung Institute	396,661,000	342,855,000	370,347,000
Natl. Inst. of Dental Research	55,573,000	52,207,000	51,427,000
Natl. Inst. of Arthritis, Metabolism & Digestive Diseases	209,000,000	180,837,000	179,801,000
Natl. Inst. of Neurological Diseases & Stroke	155,500,000	146,532,000	144,707,000
Natl. Inst. of Allergy and Infectious Diseases	141,000,000	135,615,000	127,163,000
Natl. Inst. of General Medical Sciences	205,000,000	193,435,000	187,388,000
Natl. Inst. of Child Health and Human Development	145,543,000	129,883,000	136,573,000
Natl. Inst. on Aging	30,000,000	26,220,000	19,388,000
National Eye Institute	64,000,000	46,950,000	50,285,000
Natl. Inst. of Environmental Health Sciences	49,141,000	46,141,000	37,780,000
Research Resources	137,500,000	92,342,000	130,300,000
Fogarty International Center	7,992,000	7,492,000	5,694,000
National Library of Medicine	35,234,000	35,234,000	29,244,000
Office of the Director	16,234,000	16,234,000	15,325,000
Total, Biomedical Research	$2,463,378,000	$2,139,647,000	$2,248,069,000
Buildings and Facilities	67,400,000	25,400,000	54,000,000
Total, NIH	$2,530,778,000	$2,165,047,000	$2,302,069,000

NIH Hit for Delaying Genetic Impact Statement

The National Institutes of Health last week published an environmental impact statement analyzing the potential implications of the recombinant DNA guidelines which it issued on June 23. Coming as it does more than two months after the guidelines were issued, the statement will have no effect on the structure of the guidelines, and its timing is accordingly causing NIH a bit of trouble.

The statement, published in accordance with the National Environmental Policy Act (NEPA), attempts to assess the risks and benefits associated with recombinant DNA research and to analyze the impact of the guidelines. It is an interesting document which details — in some instances for the first time — the reasons why NIH chose to accept or reject some of the courses of action proposed by various groups and individuals.

The idea behind NEPA, however, is that government actions which are likely to affect the environment should be preceded by publication of an environmental impact statement, which, in turn, should be open for public comments. NIH's timing thus seems to run counter to the spirit, if not the letter, of the law.

The reason why the timing got askew is that NIH officials did not decide that they should prepare an impact statement until the guidelines were in the final stages of drafting. (The matter falls under NEPA because organisms bearing genes transplanted from other species could, conceivably, pose a threat to the health of man, plants or animals. Publication of guidelines which allow the research to go ahead under conditions designed to isolate such modified organisms from the environment therefore constitutes a government action with potential environmental impact.) Rather than delay publication for months while the NEPA procedure ran its course, NIH Director Donald S. Fredrickson decided to issue the guidelines first and the impact statement later.

His decision was based on the rational argument that the public interest would be better served by issuing the guidelines promptly. In short, Fredrickson reasoned that recombinant DNA research was already going ahead under loose guidelines drafted in February 1975 by a group of geneticists who met in Asilomar, California. The NIH guidelines are, in some respects, stricter than the Asilomar version and they should thus be implemented as swiftly as possible.

Sensible though that argument may be, NIH officials say they are getting a lot of complaints that the timing of the impact statement has precluded much public input into the guidelines. Among such complaints is a letter from the Friends of the Earth, suggesting that all funding for recombinant DNA studies should be halted until the full NEPA process has been followed.

The content of the statement is also likely to provoke complaints. Since the possible risks and benefits from recombinant DNA research are speculative, the weight accorded to potential hazards is partly a matter of judgment. The statement sets out in some detail NIH's judgment of the hazards, but many commentators may take a different view. As the long, torturous process of setting the guidelines has amply demonstrated, though the majority of the scientific community believes that the risks are small and that they are sufficiently addressed by the guidelines, a number of individuals believe otherwise.

The impact statement is thus likely to provoke yet more discussion of the desirability of proceeding with the research. The statement is open for public comments until October 18, after which NIH officials say they may hold public hearings. Eventually, the comments will be taken into account during future revisions of the guidelines.

Copies of the statement may be obtained free of charge from Rudolf Wanner, Associate Director for Environmental Health and Safety, Bldg 12A Room 4051, NIH, Bethesda, MD 20014.

Good News About Tobacco

In response to the plentitude of nasty reports about tobacco, the industry has produced a 12-page, tabloid-size periodical devoted mainly to cheery reports about the weed and dour commentaries on its detractors.

Scheduled for publication at least four times a year, *The Tobacco Observer* made its debut last month with an assemblage of articles whose headlines included, "Pesty Anti-Smokers Blasted," "NCI Statisticians Fumble Data, Cause Unwarranted Cancer Scare," "U.S. Nets Billions from Tobacco Tax," "No Smoking Law Unenforceable," "Cigarette Bootlegging Bring Crime Millions," and "Chemical Worker Study: Heavy Smokers — Less Lung Cancer."

Page one carries a photo of a Soviet Georgian recently dead "at age 140," who "smoked two packs of cigarettes a day plus a pipe or two of tobacco throughout her life."

Subscriptions to *The Tobacco Observer* are available without charge from the Tobacco Institute, 1776 K St. NW., Washington, DC 20006. Tel. (202) 296-8434.

Study Urges Strong Role for White House Science Office

As the new White House science office is gearing up for operations, a little-noted series of recommendations issued by a subcommittee of the House Science and Technology Committee add up to a strong prescription for the office to provide tighter coordination and planning of national research and development activities.

The recommendations (see box), in the works for a year, are contained in *Special Oversight Report No. 1,* issued last month by the subcommittee on Domestic and International Scientific Planning and Analysis, chaired by Rep. Ray Thornton (D-Ark.). The legislative authority for the hearings and study that underlay the report is a newly enacted House rule which specifies that the Science and Technology Committee "shall have the function of reviewing and studying, on a continuing basis, all laws, programs, and Government activities dealing with or involving non-military research and development."

As a peg for the inquiry, the subcommittee chose the *Report on the Federal Research and Development Program — Fiscal Year 1976,* issued last year by the Federal Council for Science and Technology. The FCST *Report* was the first of what was intended to be an annual series, but the intention got lost in the long delay that preceded creation of the White House Office of Science and Technology Policy (OSTP), and the second "annual" report never got into the works. However, the OSTP legislation requires annual reports on the state of the nation's R&D program; the subcommittee has latched onto that requirement as a mandate for further inquiries, and its recommendations are aimed at putting OSTP on notice about Congressional preferences in this field.

The recommendations can be viewed as merely those of a subcommittee that can look at but not touch much of the federal research enterprise. However, since the passage of the Congressional Budget and Impoundment Act of 1974, Congress has been leaning toward longer range planning, more coordination, and tighter control over federal activities — not without many slips here and there, and certainly with a lot of resistance along the way. But the trends are clearly against the old, looser ways, and the subcommittee's recommendations harmonize with the current mood.

(Copies of *Special Oversight Report No. 1,* and related hearings, are available without charge from the Subcommittee on Domestic and International Scientific Planning and Analysis, Committee on Science and Technology, Rayburn Building, US House of Representatives, Washington, DC 20515.)

Recommended Guidelines for OSTP Reports

1. Federal R&D "should be reviewed not only through its individual components but also as a whole. . .We must develop an ability to view the research and development budget in its entirety so that the total national effort can be evaluated."

2. "The report should relate specific scientific and technological activities. . .to particular national goals."

3. "The description of current research and development activities and the resources devoted to them should be matched in the report with an analysis of the expected results and their uses."

4. "The report should include an indication of progress being made toward particular goals. . .The end user, or potential end user [of R&D], should be identified, and the implications of success or failure of research and development activities should be made more explicit in the report."

5. "The report should include an estimate of the feasibility of accomplishing each major research and development project within the time and resources available. . .To permit an evaluation of changing priorities, the report should, on an annual basis, provide estimates of the completion date and the cost, manpower, and other resource requirements needed. . ."

6. "Measures of research and development productivity should be developed and incorporated into the report."

7. "A distinction between directed and undirected basic research should be made and the priority given both kinds of basic research activities should be made explicit in the report."

8. "The report should include a projection of estimated national opportunities and needs and an estimate of prospective federal expenditures for science and technology."

9. "Privately funded research and development should be covered in the report to permit an evaluation of its role in the national research and development effort."

10. "The effects on the nation's science and technology activities arising from regulatory and other indirect influences should be assessed and included in the report."

Senate to Consider New Science, Technology Committee

A reallocation of Senate committee jurisdictions over research and development and related subjects appears likely next year as part of a general overhaul under consideration by the Temporary Select Committee to Study the Senate Committee System.

Senate committee jurisdictions were last codified in 1946, and since then, the network of committees has so sprawled all over the place that the Senate now has 31 standing, select, special and joint committees that together have sprouted 174 subcommittees. The House went through a reorganization in 1974 and 1975, one result of which was the metamorphosis of the Science and Astronautics Committee into the Science and Technology Committee, with an expanded jurisdiction over research-related matters.

As "Starting Points" — not recommendations — for the Senate reorganization, the Temporary Select Committee has offered three plans that the Senate is expected to consider when the 95th Congress convenes in January.

Starting Point I would retain the 31 committees, but would redistribute many subject areas in an effort to achieve functional jurisdictions. Among the options offered are reconstitution of the Interior Committee as the Committee on Energy and establishment of separate committees on Health and Nutrition and on Science and Technology.

In regard to the proposed Science and Technology Committee, the Temporary Select Committee noted that Senator Frank Moss (D-Utah), chairman of the present Aeronautical and Space Sciences Committee, has recommended that "such a committee be given jurisdiction over science, engineering technology, aeronautics and space, and energy research and development (other than weapons systems and military operations), as well as the Energy Research and Development Administration, the National Aeronautics and Space Administration, the Office of Science and Technology Policy, National Bureau of Standards, National Science Foundation, National Oceanic and Atmospheric Administration, Office of Technology Assessment, and Federal Coordinating Council for Science, Engineering, and Technology . . . as well as portions of the jurisdictions of Commerce, Interior, Labor and Public Welfare, Public Works, and other Senate Committees."

The effect of this would be to give the new committee jurisdictions roughly matching those of the House Science and Technology Committee.

Starting Point II would consolidate the present 31 committees into 12, among which would be a Committee on Energy, Science and Environment. However, one option under this scheme is a separate committee on Science and Technology.

The third Starting Point calls for establishing five major committees under the headings of Government Resources, Human Resources, Financial Resources, Defense and Foreign Policy, and Natural Resources. The five would preside over a total of 60 subcommittees. The proposal does not spell out the distribution of specific jurisdictions.

Hearings on these suggestions began on September 14 and will continue through the 16th. The Temporary Select Committee is scheduled to make its recommendations in time for the full Senate to consider the issue early in the next session.

NIH Almanac 1976 Available

The *NIH Almanac 1976,* a 176-page collection of historical, administrative and budgetary data concerning the National Institutes of Health, may be obtained without charge by writing to the Division of Public Information, NIH, Bethesda, Md. 20014.

NBS Institute Director Resigns

F. Karl Willenbrock, director of the Institute of Applied Technology in the National Bureau of Standards, has resigned to become dean of the School of Engineering and Applied Sciences at Southern Methodist University, Dallas. Deputy Director James R. Wright has been appointed to serve as acting director.

Stever Names Six Consultants for Science Office

Guy Stever, the new White House science adviser, is like a lame duck coach at season's end who is trying to build up a team that may soon be abolished. But he's out there recruiting as though the future is a long one, though he plans to leave shortly after election day.

With the Office of Science and Technology Policy (OSTP) now officially in existence (SGR Vol. VI, No. 14), Stever has signed on several of his close aides from the National Science Foundation, where, in addition to being director, he also formerly served as part-time presidential science adviser.

Beyond that inner-circle, however, recruiting may be a bit difficult, which perhaps explains a couple of unusual appointments: the designation of two academic researchers as "senior consultants," with the understanding that they will serve OSTP on a half-time basis. They are William A. Nirenberg, director of the Scripps Institute of Oceanography, University of California, San Diego, and Donald Kennedy, who is a professor in the Department of Biological Sciences, Stanford.

In addition, OSTP has announced four consulting appointments of the usual variety, i.e., the persons chosen will be on call for specific chores. They are Gerald F. Tape, former AEC commissioner who is president of Associated Universities, Inc.; Charles Slichter, professor of physics, University of Illinois; Eugene Fubini, a former Defense Department research administrator who is a Washington-based consultant, and Lawrence Goldmuntz, a science-policy veteran who is also a Washington consultant.

Stever and the rest of the OSTP ensemble are still using offices at the National Science Foundation while space is being prepared for them in the Executive Office Building and the Executive Office Building Annex. The move is expected to take place within a few days.

Creutz Named to NSF No. 2 Post

Edward C. Creutz has been appointed acting deputy director of the National Science Foundation, succeeding Richard C. Atkinson, who became acting director last month when H. Guyford Stever was appointed White House science adviser. Creutz, who joined NSF in 1970, will continue as assistant director of NSF's Directorate for Mathematical and Physical Sciences and Engineering. With the Democratic Senate majority generally holding back on confirming appointees to long-term posts, full-fledged appointments at the Foundation are not likely until after election day.

Science & Government Report
Northwest Station
Box 6226A
Washington, D.C. 20015

Second class postage paid at Washington, D.C.